

REMARKS

Claims 1, 3-13 and 15-17 are pending in this application. By this Amendment, claims 2 and 14 are canceled without prejudice to or disclaimer of the subject matter recited therein. Claims 1, 3-6, 9, 13 and 15 are amended. No new matter is added.

I. Claim Objections

Claims 1, 3 and 13 are objected to due to informalities. As these informalities have been addressed in the amended claims, withdrawal of the objection to claims 1, 3 and 13 is respectfully requested.

II. Claim Rejections Under 35 U.S.C. §102

Claims 1-4 and 13 are rejected under 35 U.S.C. §102(b) as anticipated by JP 9-231353 to Yamamoto et al. (Yamamoto). As claim 2 is canceled, the rejection of that claim is moot. The rejection of claims 1, 3, 4 and 13 is respectfully traversed.

Yamamoto fails to disclose each and every feature recited in the rejected claims. For example, Yamamoto fails to disclose a fuel cell system comprising a fuel cell working to produce an electrical energy arising from chemical reaction of hydrogen with oxygen . . . an ejector vacuum pump designed to recirculate an off-gas, which is discharged from said fuel cell and includes hydrogen having unreacted with the oxygen in the chemical reaction, to said fuel cell through said off-gas recirculating line, said ejector vacuum pump being designed to be controllable of an amount of the off-gas recirculated, working to mix the off-gas flowing through said off-gas recirculating line with the hydrogen gas flowing through said hydrogen supply line to output a mixture gas to said fuel cell; an output demand determining circuit working to determine a demand for output of the electrical energy from said fuel cell; a pressure sensor working to measure an output pressure of said ejector vacuum pump; and a controller working to determine the amount of the off-gas to be recirculated through said ejector vacuum pump as a function of the demand for output of the electrical energy

determined by said output demand determining circuit, said controller also regulating an open area of an outlet of said ejector vacuum pump based on the output pressure measured by said pressure sensor to control the amount of the off-gas recirculated through said ejector vacuum pump, as recited in amended independent claim 1.

Additionally, Yamamoto fails to disclose a fuel cell system comprising a fuel cell working to produce an electrical energy arising from chemical reaction of hydrogen with oxygen; . . . and an off-gas recirculating mechanism designed to recirculate an off-gas, . . . wherein said off-gas recirculating mechanism is implemented by an ejector vacuum pump which includes a nozzle having an outlet from which the hydrogen gas is discharged and is so designed as to be variable of an area of the outlet of the nozzle in response to the pressure of the mixture, as recited in amended independent claim 13.

Yamamoto relates to a fuel cell system that controls a supply of fuel pressure to allow a hydrogen fuel cell to produce power. It is alleged in the Office Action that the English language Abstract of Yamamoto discloses each and every feature recited in the rejected claims. When relying on an English language Abstract of a foreign language reference to support a rejection, the evidence relied upon is the facts contained in the Abstract. However, when the document is in a language other than English, an English language translation should be provided because the full text document may include teachings away from the invention that will preclude a rejection (see MPEP §706.02). In this case, Yamamoto merely teaches measuring a pressure in the recirculating circuit 5 using a pressure sensor 10 that is disposed in the recirculating circuit 5 to regulate opening a fuel supply valve of the ejector vacuum pump 3.

Yamamoto is silent regarding regulating the opening of the ejector vacuum pump 3 based on an output pressure of the ejector vacuum pump (i.e., an input pressure of the fuel cell 1). Rather, in Yamamoto, the pressure sensor 10 is used to measure the pressure in the

recirculating circuit 5 and not to measure the output pressure of the ejector vacuum pump 3. As such, the claims are amended to clarify the structural distinction between the applied reference of Yamamoto and the claimed subject matter.

Moreover, as shown in Fig. 2 of Yamamoto, the discharge pressure sensor 14 is used to measure the pressure discharged from the ejector vacuum pump 3 for controlling the recirculating gas flow rate regulator valve which regulates the flow rate of the recirculating gas. Thus, Yamamoto also fails to disclose adjusting an opening of the ejector vacuum pump 3 as a function of the output of the pressure sensor. As Yamamoto fails to disclose each and every feature recited in the rejected claims, as amended, withdrawal of the rejection of claims 1-4 and 13 under 35 U.S.C. §102(b) is respectfully requested.

III. Claim Rejections Under 35 U.S.C. §103

Claim 5 is rejected under 35 U.S.C. §103(a) as unpatentable over Yamamoto in view of U.S. Patent No. 6,864,003 to Ueda et al. (Ueda); claims 6-8 and 14-17 are rejected under 35 U.S.C. §103(a) as unpatentable over Yamamoto in view of U.S. Patent No. 3,585,077 to Waldman; claims 9-11 are rejected under 35 U.S.C. §103(a) as unpatentable over Yamamoto in view of U.S. Patent No. 3,982,961 to Grasso; and claim 12 is rejected under 35 U.S.C. §103(a) as unpatentable over Yamamoto in view of U.S. Patent No. 5,411,821 to Merritt et al. (Merritt). As claim 14 is canceled, the rejection of that claim is moot. The rejection of claims 5-12 and 15-17 are respectfully traversed.

Claims 5-12 and 15-17 are allowable for at least their dependency on their respective base claims, as well as the additional features recited therein. Moreover, none of the applied references, whether considered alone or in combination, disclose or suggest each and every feature recited in the rejected claims. As none of the additionally applied references overcome the deficiencies of Yamamoto discussed above, the combination of references fails

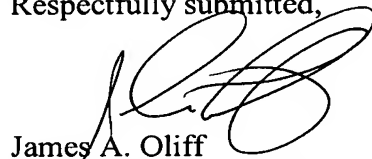
to disclose or suggest each and every feature recited in the rejected claims. Accordingly, withdrawal of the rejection of claims 5-12 and 14-17 is respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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Attachment:
Petition for Extension of Time

Date: February 22, 2006

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